Declaration by D. Lubda

In re application of Mueller et al.

O Serral No.: 10/089,222

JUL 0 Z 2004

MESTIE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Mueller et al.

Serial No.:

10/089,222

Filed

07/19/2002

For: POROUS ORGANIC POLYMER MOULDINGS

Group Art Unit:

1723

Examiner:

Therkorn, Ernest G.

## **DECLARATION**

Honorable Commissioner of Patents and Trademarks Washington, D.C., 20231

SIR:

The Declarant, Dieter LUBDA, being duly warned, declares and says:

THAT he is a German citizen, residing at Bensheim, Germany;

THAT he is a Diploma engineer having studied at the Technische Fachhochschule Berlin (West), Germany, from 1980 to 1984;

THAT he graduated from the Technische Fachhochschule Berlin (West), Germany, in 1984;

THAT in 1984, he joined the Research and Development Department, Section Chromatography, of MERCK, Darmstadt, Germany;

THAT since 1984, he has been working in the field of separation materials and chromatography;

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THAT he is author or co-author of numerous articles in the field of separation materials and chromatography, especially monolithic sorbents made of silica gel;

THAT he is familiar with the subject matter of the invention disclosed and claimed in U.S. Patent Application Ser. No. 10/089,222, by Mueller et al. (hereinafter referred to as APPLICATION) of which he is a co-inventor;

THAT he is familiar with the subject matter disclosed in the cited references, among which are US 3,222,444, EP 0366 252 and WO 95/03256;

THAT flow resistance is not equal to diffusion. Especially when having a material with a bimodal pore structure (macro- and mesopores) a low flow resistance does not automatically guaranty good diffusion properties (within the macro- and mesopores). It could have been expected that the liquid rapidly flows through the macropores without also effectively filling the mesopores.

THAT the teaching of Feibush et al. does not motivate a person skilled in the art to copy the disclosed procedure.

On page 8, table 1, the properties of the educt- and product particles according to example 1 are listed. As template particles Feibush et al. have used silica particles with a pore volume of 1.1 ml/g (in the table the pore volume has wrongly been specifies as 1.1 g/ml). Consequently, 10 g particles have a pore volume of 11 ml. In example 1, 10 g particles are firstly mixed with 100 ml of water. Afterwards, 10 ml monomeric solution are added. Of course, the water which is added first, is already distributed within the pores and wets them before the monomeric solution itself may enter the pores. Even assuming that the monomeric solution and the water are homogenously mixed before entering the pores, at best, the pores are filled with a solution comprising 1 part monomeric solution and 10 parts water. Given a total pore volume of 11 ml and a total volume of 110 ml solution (100 ml water + 10 ml monomeric solution), at best, about 1.1 ml monomeric solution are really distributed within the pores of the template particles. Probably, the rest of the monomeric

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solution will polymerize somewhere around the particles. It has to be strongly doubted that 1.1 ml monomeric solution within the pores of the template particles really enable the production of polymer particles that have a size and porosity equal to that of the template particles. In addition, one has to wonder how these polymeric particles (out of 1.1 ml monomeric solution) are separated from the rest of the polymerized monomeric solution (8.9 ml).

The other examples give similar procedures and volumes.

THAT with regard to the examples given in Feibush et al. a person skilled in the art had to assume that a similar procedure could not be applied to monolithic template matrices.

The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the APPLICATION or any patent issuing thereon.

Done, this February 11, 2004 at Darmstadt, Germany

Dieter Lubda

Onto he